

APPENDIX A

hol and ether. (Do not confuse with chloramine-T). Chloramine is an intermediate in the Raschig process for hydrazine (q.v.).

chloramine-B. $\text{C}_6\text{H}_5\text{SO}_2\text{NCINa}$ (sodium benzenesulfonchloramine).
Properties: White powder with faint chlorine odor; soluble in water.

chloramine-T. (sodium para-toluenesulfonchloramine). $\text{CH}_3\text{C}_6\text{H}_4\text{SO}_2\text{NNaCl}\cdot 3\text{H}_2\text{O}$. See also dichloramine-T.
Properties: White or slightly yellow crystals or crystalline powder. Contains not less than 11.5 nor more than 13% active chlorine. Slight odor of chlorine. Decomposes slowly in air, liberating chlorine. (Not to be confused with NH_4Cl , which is also termed chloramine). Soluble in water; insoluble in benzene, chloroform, ether; decomposed by alcohol.
Derivation: Reaction of ammonia and paratoluenesulfonchloride under pressure. The latter is reacted with sodium hypochlorite in the presence of an alkali and the chloramine produced by crystallization.
Hazard: Toxic by ingestion.
Use: Medicine.

chloramphenicol
 $\text{NO}_2\text{C}_6\text{H}_4\text{CH}(\text{OH})\text{CH}(\text{CH}_2\text{OH})\text{NHCOC}_6\text{H}_4\text{Cl}_2$
D(-)-Threo-1-(para-nitrophenyl)-2-dichloroacetamido-1,3-propanediol. An antibiotic derived from Streptomyces venezuelae or by organic synthesis. It was the first substance of natural origin shown to contain an aromatic nitro group.
Properties: Fine, white to grayish-white or yellowish-white, needlelike crystals or elongated plates. Bitter to taste, neutral to litmus, and reasonably stable in neutral or slightly acid solutions. M.p. 149-153°C; alcoholic solution is dextrorotatory while ethyl acetate solution is levorotatory. Very slightly soluble in water; freely soluble in alcohol, propylene glycol, acetone and ethyl acetate.
Grade: U.S.P.
Hazard: Has deleterious and often dangerous side effects. Must conform to FDA labelling requirements; use is closely restricted.
Uses: Medicine (antibiotic); antifungal agent.

chloramphenicol sodium succinate $\text{C}_{15}\text{H}_{15}\text{Cl}_2\text{N}_2\text{NaO}_6$.
Properties: Light yellow, crystalline powder. Freely soluble in water and alcohol.
Grade: U.S.P.
Use: Medicine. (See note under chloramphenicol).

chloranil (tetrachloroquinone; tetrachloro-para-benzoquinone) $\text{C}_6\text{Cl}_4\text{O}_2$.
Properties: Yellow leaflets; m.p. 290°C; sp. gr. 1.97; soluble in alcohol, ether, and benzene; insoluble in water; good storage stability.
Derivation: From phenol, para-chlorophenol, or paraphenylenediamine by treatment with potassium chlorate and hydrochloric acid.
Hazard: Skin irritant. MCA warning label.
Uses: Agricultural fungicide; dye intermediate; electrodes for pH measurements; vulcanizing agent.
chloranthrene yellow. See flavanthrene.

chlor. See chloro-.

chloral (trichloroacetaldehyde) CCl_3CHO .
Properties: Colorless, mobile, oily liquid; penetrating odor. Sp. gr. 1.505 (25/4°C); m.p. -57.5°C; b.p. 97.7°C; vapor pressure 35 mm (20°C); index of refraction (n_D 20/D) 1.4557; latent heat of vaporization 97.1 Bu/lb. Soluble in water, alcohol, ether and chloroform; combines with water forming chloral hydrate.
Derivation: (a) By the chlorination of ethyl alcohol, addition of sulfuric acid, and subsequent distillation; (b) by the chlorination of acetaldehyde.
Grades: Technical, 94% min.
Containers: Drums; glass bottles; tankcars.
Hazard: Highly toxic; strong irritant; ingestion or inhalation may be fatal. MCA warning label.
Uses: Manufacture of DDT; organic synthesis; liniments.
Shipping regulations: (ICC, IATA) Poison label.
chloralamide. See chloral formamide.
chloral formamide (chloralamide; chloramide) $\text{CCl}_3\text{CHONHCHO}$.
Properties: Colorless, lustrous crystals; odorless; slightly bitter taste. Soluble in water (hydrolyzes at 60°C), alcohol, ether and glycerol. M.p. 114-115°C; decomposes at higher temperatures.
Use: Medicine.

chloral hydrate ("knockout drops"; trichloroacetaldehyde, hydrated; trichloroethylidene glycol) $\text{CCl}_3\text{CH}(\text{OH})_2$.
Properties: Transparent, colorless crystals; aromatic, penetrating, slightly acid odor and slightly bitter, sharp taste. Slowly volatilizes when exposed to air. Soluble in water, alcohol, chloroform, and ether; also soluble in olive oil and turpentine oil. Sp. gr. 1.901; m.p. 52°C; b.p. 97.5°C.
Derivation: Action of 1/5 of its volume of water on chloral.
Grades: Technical; U.S.P.
Hazard: Highly toxic; dangerous to eyes; hypnotic drug, overdose may be fatal.
Uses: Medicine (sedative); manufacture of DDT; liniments.
Shipping regulations: (ICC, CG, IATA) Poison label.
chloral hydrate antipyrine (antipyrine chloral hydrate) $\text{C}_{11}\text{H}_9\text{N}_3\text{OCl}_3\text{CH}(\text{OH})_2$.
Properties: Colorless crystals; moderately soluble in water; soluble in alcohol; m.p. 67°C.
Hazard: Probably toxic.
Use: Medicine (sedative).

chlorambucil (4-(para[bis(2-chloroethyl)amino]phenyl)butyric acid) $(\text{ClCH}_2\text{CH}_2\text{NC}_6\text{H}_4)_2\text{COOH}$. A nitrogen mustard derivative.
Properties: Off-white powder; m.p. 65-69°C. Slightly soluble in water; soluble in acetone and ether.
Grade: U.S.P.
Hazard: Highly toxic.
Uses: Medicine; insect sterilant.
Shipping regulations: (ICC, CG, IATA) Poison label.
chloramid. See chloral formamide.

Superior numbers refer to Manufacturers of Trade Mark Products. For page number see Contents.

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acid. See anthraquinone-1,8-disulfonic acid.
icigo acid. See 8-amino-1-naphthol-5,7-disulfonic acid.

cle. A thermoplastic, gumlike substance obtained from the latex of the sapodilla tree native to Mexico and Central America. Softens at 90°F. Insoluble in water; soluble in most organic solvents. Chief use is as chewing gum, after incorporation of sugar and specific flavoring. Nontoxic, but ingestion should be avoided.

lean nitrate. See sodium nitrate.
lean saltpeter. See sodium nitrate.
na bark. See quillaja.
na clay. See kaolin.
na-wood oil. See tung oil.
nese bean oil. See soybean oil.
nese blue. See iron blues.
nese cinnamon oil. See cassia oil.
nese gelatin. See agar.
nese isinglass. See agar.
nese rhubarb. See rhubarb.
nese wax (insect wax; Chinese tree wax; vegetable ermaceti).
Properties: White to yellowish-white solid; nearly colorless and tasteless. Soluble in alcohol, chloroform, benzene, and naphtha. Insoluble in water. Sp. gr. 0.970; m.p. 80-83°C. Combustible.
Derivation: Secreted by an insect Coccus ceriferus. The wax is deposited on the branches of trees and is moved by hand and melted in boiling water to remove dirt, bark, etc.
Method of purification: Filtration.
Uses: Crude.
Containers: Burlap bags; wooden barrels; multiwall persacks.
Properties: Paper size; furniture, leather, and shoe polishes; treating cotton fabrics.
se white. See zinc oxide.
acid. See quinic acid.
line. See quinidine.
-Cal. Trademark for low-lime calcium arsenate and powder (48% tricalcium arsenate) form. Highly toxic by ingestion.
cure. Trademark for a series of organic mercury seed treatments based on methyl mercury chloride.
rd: Highly toxic by ingestion.
A glucosamine polysaccharide. Contains about nitrogen, and is structurally similar to cellulose, a principal constituent of the shells of crabs, lobsters, beetles. It is also found in some fungi, algae, yeasts.
Properties: White, amorphous, semitransparent mass; soluble in the common solvents; soluble in concentrated hydrochloric, nitric, and sulfuric acids. Biological research.